

01/23/02

JCS41 U.S. PTO

01-25-02

PTO/SB/05 (03-01)

Approved for use through 10/31/2002. OMB 0651-003

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**UTILITY  
PATENT APPLICATION  
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No. I/Dutta-001

First Inventor DUTTA

Title A size variable strain-specific protective antigen for Potomac Horse Fever

Express Mail Label No. KT 7925 3474545

**APPLICATION ELEMENTS**

See MPEP chapter 600 concerning utility patent application contents.

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original and a duplicate for fee processing)
2. ☐ Applicant claims small entity status.  
See 37 CFR 1.27.
3. ☒ Specification [Total Pages 61]  
(preferred arrangement set forth below)
- Descriptive title of the invention
  - Cross Reference to Related Applications
  - Statement Regarding Fed sponsored R & D
  - Reference to sequence listing, a table, or a computer program listing appendix
  - Background of the Invention
  - Brief Summary of the Invention
  - Brief Description of the Drawings (if filed)
  - Detailed Description
  - Claim(s)
  - Abstract of the Disclosure
4. ☒ Drawing(s) (35 U.S.C. 113) [Total Sheets 13]
5. Oath or Declaration [Total Pages ]
- a. ☐ Newly executed (original or copy)
- b. ☐ Copy from a prior application (37 CFR 1.63 (d))  
(for continuation/divisional with Box 18 completed)
- i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. ☐ Application Data Sheet. See 37 CFR 1.76

**ADDRESS TO:**Assistant Commissioner for Patents  
Box Patent Application  
Washington, DC 20231

7. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
8. Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
- a. ☐ Computer Readable Form (CRF)
- b. Specification Sequence Listing on:
- i. ☐ CD-ROM or CD-R (2 copies); or
- ii. ☐ paper
- c. ☐ Statements verifying identity of above copies

**ACCOMPANYING APPLICATION PARTS**

9. ☐ Assignment Papers (cover sheet & document(s))
10. ☐ 37 CFR 3.73(b) Statement ☒ Power of Attorney  
(when there is an assignee)
11. ☐ English Translation Document (if applicable)
12. ☐ Information Disclosure Statement (IDS)/PTO-1449 ☐ Copies of IDS Citations
13. ☒ Preliminary Amendment
14. ☒ Return Receipt Postcard (MPEP 503)  
(Should be specifically itemized)
15. ☐ Certified Copy of Priority Document(s)  
(if foreign priority is claimed)
16. ☐ Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. ☐ Other: .....

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☐ Continuation ☒ Divisional ☐ Continuation-in-part (CIP)

of prior application No.: 09,157,257

Prior application information:

Examiner: J. Graser

Group Art Unit: 1645

For CONTINUATION OR DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

**19. CORRESPONDENCE ADDRESS**☐ Customer Number or Bar Code Label

(Insert Customer No. or Attach bar code label here)

or

☒

Correspondence address below

Name

Intervet Inc, Patent Department

Address

405 State Street

P.O. Box 318

City

Millsboro

State

DE

Zip Code

19966-0318

Country

US

Telephone

302 933 4034

Fax

302 933 4013

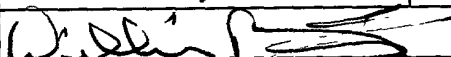
Name (Print/Type)

William P Ramey III

Registration No. (Attorney/Agent)

44,295

Signature



Date

01/23/2002

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# FEE TRANSMITTAL for FY 2002

Patent fees are subject to annual revision.

## Complete if Known

Application Number	Unknown
Filing Date	01/23/2002 Anticipated
First Named Inventor	DUTTA
Examiner Name	To be assigned
Group Art Unit	TBA
Attorney Docket No.	I/Dutta-001 D1

TOTAL AMOUNT OF PAYMENT (\$ ) 740.00

## METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number 02-2334  
Deposit Account Name

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17

☐ Applicant claims small entity status. See 37 CFR 1.27

2. ☐ Payment Enclosed:

☐ Check ☐ Credit card ☐ Money Order ☐ Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity Small Entity

Fee Fee Fee Fee  
Code (\$) Code (\$) Description

101	740	201	370	Utility filing fee
106	330	206	165	Design filing fee
107	510	207	255	Plant filing fee
108	740	208	370	Reissue filing fee
114	160	214	80	Provisional filing fee

Fee Paid

SUBTOTAL (1) (\$ ) 740.00

### 2. EXTRA CLAIM FEES

Total Claims  -20\*\* =  X  =   
Independent Claims  -3\*\* =  X  =   
Multiple Dependent  =

Large Entity Small Entity

Fee Fee Fee Fee  
Code (\$) Code (\$) Description

103	18	203	9	Claims in excess of 20
102	84	202	42	Independent claims in excess of 3
104	280	204	140	Multiple dependent claim, if not paid
109	84	209	42	** Reissue independent claims over original patent
110	18	210	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$ )

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid		
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for ex parte reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	400	216	200	Extension for reply within second month	
117	920	217	460	Extension for reply within third month	
118	1,440	218	720	Extension for reply within fourth month	
128	1,960	228	980	Extension for reply within fifth month	
119	320	219	160	Notice of Appeal	
120	320	220	160	Filing a brief in support of an appeal	
121	280	221	140	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,280	241	640	Petition to revive - unintentional	
142	1,280	242	640	Utility issue fee (or reissue)	
143	460	243	230	Design issue fee	
144	620	244	310	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	50	123	50	Processing fee under 37 CFR 1.17(q)	
126	180	126	180	Submission of Information Disclosure Stmt	
581	40	581	40	Recording each patent assignment per property (times number of properties)	
146	740	246	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
149	740	249	370	For each additional invention to be examined (37 CFR § 1.129(b))	
179	740	279	370	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$ )

## SUBMITTED BY

Name (Print/Type)	William P Ramey III	Registration No. (Attorney/Agent)	44,295	Telephone	302 933 4037
Signature	William P Ramey III	Date	01/23/2002		

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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Certificate of Mailing by Express Mail

I hereby certify that this paper is being transmitted to the Patent and Trademark Office on the date shown below:

By: K. Mea

Express Mailing #: ET 792534745US

Date: 1/23/02

Atty Docket No.: I/Dutta-001

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

DUTTA ET AL.

Serial No.: Unknown

Group Art Unit: To be assigned

Filed: January 23, 2002 (Anticipated)

Examiner: To be assigned

For: A SIZE-VARIABLE STRAIN-SPECIFIC PROTECTIVE ANTIGEN FOR  
POTOMAC HORSE FEVER

Assistant Commissioner of Patents  
Washington, D.C. 20231

Dear Sir:

**REQUEST FOR FILING OF DIVISIONAL APPLICATION**

**PURSUANT TO 37 C.F.R. §1.53(B) AND PRELIMINARY AMENDMENT**

Applicants respectfully request acknowledgement of the filing of this divisional application of application serial number 09/157,257 pursuant to 37 CFR §1.53(b) and

Applicants further request the following preliminary amendment be entered:

**I. PRELIMINARY AMENDMENT**

**A. IN THE CLAIMS (CLEAN SHEET)**

28. An isolated strain of *E. risticii* having essentially the same antigenic characteristics of *E. risticii* strain 90-12.
29. An isolated strain of an organism having essentially the same antigenic characteristics of *E. risticii* strain 90-12.
30. A vaccine comprising an immunogenically effective amount of the *E. risticii* strain of Claim 28.
31. A vaccine comprising an immunogenically effective amount of the *E. risticii* strain of Claim 29.
32. The vaccine of Claim 30, which is a killed vaccine.
33. The vaccine of Claim 31, which is a killed vaccine.
34. A method of protecting a mammal against Potomac Horse Fever comprising the step of administering an effective amount of the vaccine of Claim 30.
35. A method of protecting a mammal against Potomac Horse Fever comprising the step of administering an effective amount of the vaccine of Claim 31.

**B. IN THE CLAIMS (MARKED VERSION)**

Please cancel Claims 1-27 without prejudice or disclaimer. Such cancellation is not an admission that such claims are not patentable, nor is it an admission that any prior art is relevant.

Please add the following Claims:

- 28. An isolated strain of *E. risticii* having essentially the same antigenic characteristics of *E. risticii* strain 90-12.
29. An isolated strain of an organism having essentially the same antigenic characteristics of *E. risticii* strain 90-12.
30. A vaccine comprising an immunogenically effective amount of the *E. risticii* strain of Claim 28.
31. A vaccine comprising an immunogenically effective amount of the *E. risticii* strain of Claim 29.
32. The vaccine of Claim 30, which is a killed vaccine.
33. The vaccine of Claim 31, which is a killed vaccine.
34. A method of protecting a mammal against Potomac Horse Fever comprising the step of administering an effective amount of the vaccine of Claim 30.
35. A method of protecting a mammal against Potomac Horse Fever comprising the step of administering an effective amount of the vaccine of Claim 31. --

**C. IN THE SPECIFICATION (CLEAN SHEET)**

Paragraph beginning at line 5 on page 1:

This application claims the benefit of priority under 35 U.S.C. §119(e) to U.S. Provisional Application Serial No. 60/059,252, filed on September 18, 1997 and the benefit of priority under 35 U.S.C. §120 to U.S. Application Serial No. 09/157,257, filed on September 18, 1998.

Paragraph beginning on page 5, line 16:

The SSA may vary widely in both overall size and amino acid composition. The SSA may have a molecular weight of about 40 to about 90 kDa, inclusive of all specific values and subranges therebetween. In specific embodiments of the present invention, the SSA has a molecular weight of about 50 kDa or 85 kDa. Examples of specific amino acid sequences of the inventive SSAs are shown in Figures 2-4 (SEQ ID NO: 4, 6, and 8).

Paragraph beginning on page 5, line 21

The present invention also provides isolated and purified nucleic acid sequences (e.g. recombinant DNAs) which encode the SSAs. Specific examples of nucleotide sequences encoding the SSA of the present invention are shown in Figures 2-4 (SEQ ID NO: 3, 5, and 7). All nucleotide sequences encoding a particular SSA are included in the scope of the present invention. Selecting a nucleic acid encoding a particular amino acid sequence may be readily accomplished by using the well-established genetic code relating the nucleic acid sequence of a codon sequence to the amino acid sequence encoded thereby. The genetic code is provided by R.H. Abeles et al, Biochemistry, Jones



**D. IN THE SPECIFICATION (MARKED VERSION)**

Please insert – and the benefit of priority under 35 U.S.C. §120 to U.S.

Application Serial No. 09/157,257, filed on September 18, 1998 – after “September 18, 1997”.

At page 5, line 20, please delete “3, 5, and 7” and substitute therefore – 4, 6, and 8

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At page 5, line 23, please delete “4, 6, and 8” and substitute therefore – 3, 5, and 7

--.

**II. REMARKS**

Applicants have filed a divisional pursuant to 37 CFR §1.53(b). The amendment above is to cancel claims and pursue non-elected claims in a previous application. The amendment is not done for reasons of patentability under 35 USC §§101, 102, 103, and/or 112 and no estoppel is created by such amendment.

**III. Conclusion**

Applicants respectfully request a granting of a filing date to this divisional application. Further, Applicants respectfully request the entering of the preliminary amendment enclosed herein. The application is believed in a condition for allowance and Applicants respectfully request such action. Please call the below undersigned attorney



[illegible]

William P. Ramey, III  
Reg. No. 44 295

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